Materiel Visibility Transformation Plan Tables

Materiel Visibility

The Materiel Visibility (MV) Business Enterprise Priority is defined as the ability to locate and account for materiel assets throughout their lifecycle and provide transaction visibility across logistics systems in support of the joint warfighting mission.

Materiel Visibility will provide users with timely and accurate information on the location, movement, status, and identity of unit equipment, materiel and supplies, and the ability to act upon that information to improve supply chain performance. The MV BEP will improve the delivery of warfighting capability to the warfighter as measured in terms of responsiveness, reliability and flexibility.

One benefit of Materiel Visibility will be the capability to account for and report all material costs incurred to acquire and bring a military equipment asset to a form and location suitable for its intended use. Materiel Visibility will also provide the ability to see, locate and account for materiel assets through their lifecycle, with transaction visibility across logistics systems in support of joint warfighting mission and in support of a tiered and hierarchical and federated architecture supported by the two major agents for MSSM (DLA and USTRANSCOM) in partnership with the other Components.
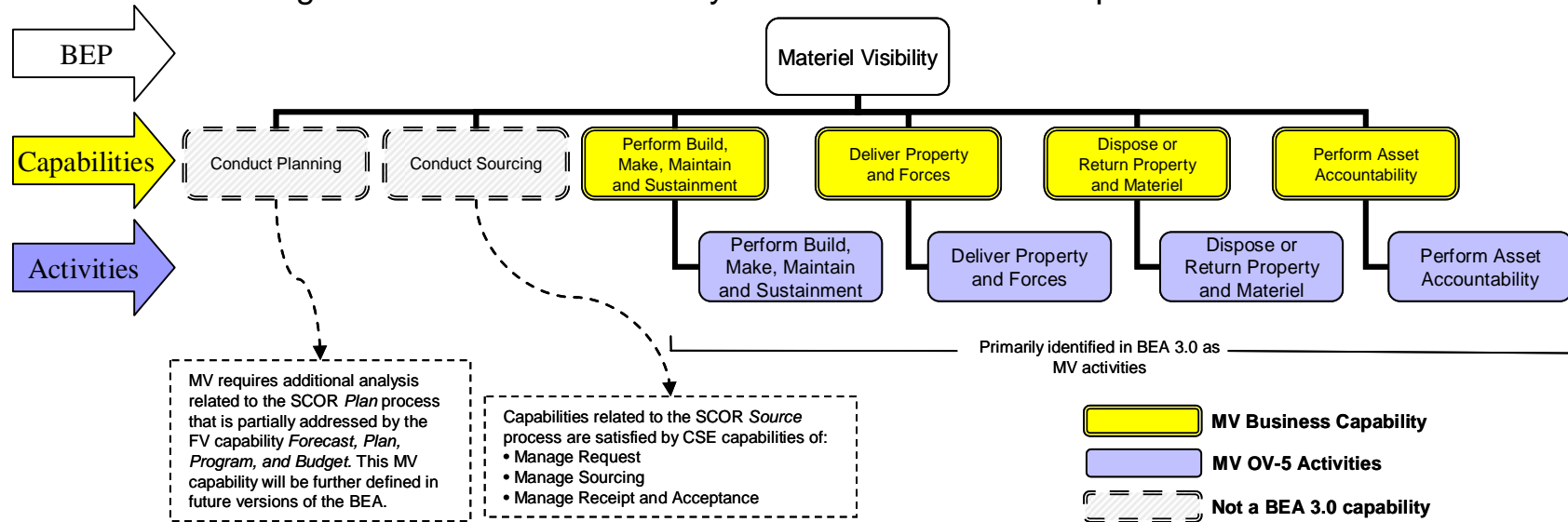
Role of the BEA in Achieving Materiel Visibility

The BEA represents the "To Be" end state, which is not an isolated goal, but a means to achieve specific Business Capabilities to attain the BEP.

The BEA will provide value for Materiel Visibility, particularly in the key areas of establishing common processes, best practices, business rules, and data standards. For example, BEA 3.0 breaks down each of the core Business Capabilities into its core component parts. This breakdown further enables the Materiel Community to articulate at the activity level the expected impacts of any particular initiative, and, therefore, how those initiatives will support both specific capability enhancement(s) as well as the overall priority of enhancing Materiel Visibility.

Figure E4-1 maps Materiel Visibility Business Capabilities to the BEA operational activities in the Operational Activity Model (OV-5). Table E4-1 provides additional detail on Business Capabilities their relationship to the architecture and capability targets.

Figure E4-1: Materiel Visibility and the Business Enterprise Architecture

BEP

Capabilities

Activities

Materiel Visibility

Conduct Planning

Conduct Sourcing

Perform Build, Make, Maintain and Sustainment

Deliver Property and Forces

Dispose or Return Property and Materiel

Perform Asset Accountability

Perform Build, Make, Maintain and Sustainment

Deliver Property and Forces

Dispose or Return Property and Materiel

Perform Asset Accountability

Primarily identified in BEA 3.0 as MV activities

MV requires additional analysis related to the SCOR *Plan* process that is partially addressed by the FV capability *Forecast, Plan, Program, and Budget.* This MV capability will be further defined in future versions of the BEA.

Capabilities related to the SCOR *Source* process are satisfied by CSE capabilities of:
• Manage Request
• Manage Sourcing
• Manage Receipt and Acceptance

MV Business Capability

MV OV-5 Activities

Not a BEA 3.0 capability

Targets and Metrics for Materiel Visibility Business Capabilities

Table E4-1: Targets and Metrics for Business Capabilities

Capability: Perform Build, Make, Maintain and Sustainment - Ability to develop, sustain, maintain, or upgrade property and equipment. (Maps to "Perform Build, Make, Maintain and Sustainment" activity in the BEA 3.0.)

Capability: Deliver Property and Forces - Ability to satisfy the needs of internal and external customers, as evidenced by orders (i.e. requisitions, purchase orders or contracts), by issuing or transporting forces, inventory and related materials or capital equipment. (Maps to "Perform Asset Accountability" activity in the BEA 3.0.)

Capability: Dispose or Return Property and Materiel - Ability to send goods and equipment back into the supply chain when they are received in error, in excess of required quantities, or defective, obsolete, damaged, or worn until rendered no longer useful in their current condition. It also includes the disposal of real property by demolition or transfer. (Maps to "Dispose or Return Property and Materiel" activity)

6-Month Business Capability Targets	12-Month Business Capability Targets	18-Month Business Capability Targets
• Begin to capture MEV data linked directly to IUID data • IUID Registry established and enhanced to accept IUID legacy data for property in inventory and operational use, and DoD property in the possession of contractors • DFARS Rule for all new contracts and solicitations with GFP to apply IUID for property management and reporting • All Program IUID Implementation Plans and Automated Information System (AIS) plans completed and submitted to their respective Milestone Decision Authority • Extension of Tactical RFID USMC implementation at Camp Lejeune and launch at 3 selected aerial ports • Identify systems within USTRANSCOM and Transportation Component Commands (TCCs) using MILS	• IUID STANAG ratification by NATO Asset Tracking Working Group • Full capability for electronic management of DoD property in the possession of contractors • Implement RFID tagging for all Class I commodities, and Classes IIIP, IV, V, VII, VIII, and IX shipments to distribution depots, aerial ports, and maintenance facilities • Monitor trading partner migration performance from MILS	• Demonstrate an integrated IUID data environment • All serially managed assets registered in the IUID Registry • Fully integrated capability for uniquely identifying and marking of personal property items in all organic depots • Suppliers apply passive RFID tags to all shipments for all commodities • Monitor trading partner migration performance from MILS

Key Performance Parameters:

• Warfighter—Level 1: Force Readiness, Force Sustainment; Level 2: Materiel Support, MC Rates

• Logistics process–Level 1: Logistics Chain Reliability, Logistics Chain Effectiveness; Level 2: Perfect Order Fulfillment, Logistics Chain Cycle Time

• Resource planning–Level 1: Logistics Chain Cost-Effectiveness, Logistics Chain Cost-Effectiveness; Level 2: Total Logistics Chain Cost; Total Logistics Chain Cost Percentage

• RFID-% of locations having ability to read/write passive RFID; % consolidated shipments flowing into Iraq and Afghanistan having active RFID tag

• IUID-40% of personal property items and affiliated embedded items meeting IUID for ACAT 1D programs

• IUID – 30% of personal property items and affiliated embedded items meeting IUID criteria for non-ACAT 1D programs

• MILS to EDI or XML-% of trading partners successfully migrated

Capability: Perform Asset Accountability - Ability to record accountability and control for all property throughout its lifecycle, from when the government takes title to or possession of property until when formally relieved of accountability by authorized means. It establishes the responsibility imposed by law, lawful order, or regulation, accepted by the Department for keeping accurate records, to ensure control of property, with or without physical possession. (Maps to "Perform Asset Accountability" activity in the BEA 3.0.)		
6-Month Business Capability Targets	**12-Month Business Capability Targets**	**18-Month Business Capability Targets**
• Initial program valuations completed (100% of total universe)	• Account for and report "full cost" to acquire and bring a military equipment (ME) asset to a form and location for its intended use. CAMS-ME Release 1.1 IOC • Establish database for baseline balances for FY07. CAMS-ME Release 1.1 FOC	• Approval to obligate funds for ME production database. CAMS-ME Increment 2 Milestone B
Key Performance Parameters: • Number of programs with valuations • Percentage completion in development of enterprise baseline maintenance and update tool		

Notes:

• Business Capabilities will be enabled concurrently through three (3) distinct initiatives (i.e., IUID, RFID, and MEV).

• Logistics BSC Supply Chain Management Metrics Level 1 (L1) and Level 2 (L2), JLB approved, will be used across capabilities

Role of Systems and Initiatives in Achieving Materiel Visibility

Initiatives identified by the Supply Chain Support organization play major roles in attaining Materiel Visibility. The initiatives that have been selected satisfied each of the following criteria:

- Supports one or more of the desired business capability targets in either the 6, 12, and/or 18-month timeframes

- Transformational in nature

- Cross-functional and/or Cross-Component in nature (i.e., enterprise solutions)

While a number of initiatives may satisfy each of the criteria, the MV BEP has been narrowed to the four most strategic initiatives in order to ensure adequate and appropriate focus and resource allocation is made that will yield the highest likelihood for success. Including additional initiatives at this time will increase the risk associated with success to a point of diminishing returns.

Table E4-2 provides a high-level representation of each Enterprise initiative that depicts its contribution to achievement of the Business Capability. Some initiatives provide standards that enable Business Capabilities, while others provide specific Business Capabilities either at the DoD Enterprise-level by ensuring the interoperability of Component solutions (i.e., heterogeneous solution) or DoD Enterprise-wide (i.e., homogeneous solution).

Table E4-2: Systems/Initiatives Mapping to Business Capabilities

	System/Initiative	How Provides or Supports	Deliver Property and Forces	Dispose or Return Property and Material	Perform Build, Make, Maintain, and Sustainment	Perform Asset Accountability
Enterprise Systems	Capitol Asset Management System – Military Equipment (CAMS-ME)[1]	EL				●
Enterprise Initiatives	Military Equipment Valuation (MEV)	EW				●
	Item Unique Identification (IUID)	EL	●	●	●	
	Radio Frequency Identification (RFID)	EL	●	●	●	
	Transition from MILS to EDI or XML (MILS to EDI or XML)	S	○	○	○	○
Component Systems	TBD					

Enterprise/Component Systems and Initiatives use the following notation:

- S (DoD Enterprise-wide Standard) – if the primary end product of the System/Initiative is a standard, enter an "S" for How Provides or Supports and enter an "○" under each Business Capability directly supported by the standard

- EW (DoD Enterprise-wide) – if the System/Initiative provides a homogeneous implementation of the capability to the entire department (one solution that all DoD uses), enter "EW" for How Provides or Supports and "●" for each Business Capability provided

- EL (Enterprise-level) – if the System/Initiative provides a heterogeneous rollup of information to upper management (one solution that DoD leadership uses), enter "EL" for How Provides or Supports and "●" for each Business Capability provided

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[1] CAMS-ME Approach, Benefits and Outcomes/Targets are contained in the MEV chart on the following page.

Enterprise Initiative: Military Equipment Valuation (MEV)

Description and Objective: Provide DoD the capability to account for and report all materiel costs incurred to acquire and bring a military equipment asset to a form and location suitable for its intended use.

Approach:

- Military Equipment Valuation business capabilities will be incrementally deployed. Four business capabilities are included in this initiative: establishing work-in-process, creating an asset value, conducting fixed asset accounting, and performing asset accountability. Increment 1 of CAMS-ME will provide for the first 3 capabilities based on manual feeds. Increment 2 of CAMS-ME will be based on process changes in acquisition planning and contract writing, and receipt and acceptance to allow automated processing of account establishment in work-in-process. Additional process and system changes in accountability systems will allow automated asset disposition inputs from cleansed accountability systems

Benefits: There are 2 primary benefits
1. Provide decision makers with accurate, timely, complete, reliable, and consistent information upon which to make investment decisions.
   - by calculating gross book value, accumulated depreciation, depreciation expense per period, gain/loss associated with disposition, and WIP balances quarterly
   - by supporting the preparation and execution of budgets
2. Gain and maintain the public's trust
   - by providing the ability to manage approximately 1,000 acquisition programs that meet the Federal Accounting Standards Advisory Board (FASAB) standards
   - by providing a complete audit trail to facilitate audits

Other benefits include establishing the ability to add new programs and new contracts annually, providing for adequate agency management reporting, and facilitating the preparation of financial statements and other financial reports in accordance with Federal accounting and reporting standards

6-Month Outcomes/Targets

- Automation of current manual spreadsheets with CAMS-ME Prototype
- Initial Program Valuations Completed (100% of total universe)

12-Month Outcomes/Targets

- Account for and report "full cost" to acquire and bring a military equipment (ME) asset to a form and location for its intended use. CAMS-ME release 1.1 IOC
- Establish database for baseline balances for FY07. CAMS-ME release 1.1 FOC

18-Month Outcomes/Targets

- Approval to obligate funds for ME production database. CAMS-ME Increment 2 Milestone B

Enterprise Initiative: Item Unique Identification (IUID)

Description and Objective: Item Unique Identification (IUID) is the strategic imperative for uniquely identifying tangible personal property items that enables the accurate, timely recording of information on the location, movement, status and identity of equipment, materiel and supplies to ensure accurate acquisition, repair, and deployment of items in an efficient and effective manner.

Approach:

- Leverages existing open and internationally recognized part marking standards in constructing the IUID policy
- Expand existing policies requiring unique identification
- Establish a central IUID Registry of Unique Item Identifiers (UII) that associates item data from multiple information systems through globally unique ubiquitous identifiers
- Utilize WAWF receipt/acceptance/invoice as the electronic transaction tool to register new items in the IUID Registry
- Enhance Wide Area Workflow (WAWF) to update IUID Registry for property transfers
- Effect changes for integration with Plant Clearance Automated Reutilization Screening System, Lost Damaged and Destroyed On-line system, and Defense Medical Logistics Support System, as well as inventory, property book and maintenance systems

Benefits:

- Provide item visibility regardless of platform or "owner"
- Supply data for logistics and engineering analysis
- Provide an accurate source for property and equipment valuation/accountability
- Improve access to historical data for use during systems design and throughout the life of an item
- Provide better item intelligence for the warfighter for operational planning
- Reduce workforce burden through efficiencies
- Enable condition-based maintenance
- Achieve lower life-cycle cost of item management

6-Month Outcomes/Targets

- DFARS Rule for all new contracts and solicitations with GFP to apply IUID for property management and reporting
- All Program IUID Implementation Plans and Automated Information System (AIS) plans completed and submitted to their respective Milestone Decision Authority

12-Month Outcomes/Targets

- IUID STANAG ratification by NATO Asset Tracking Working Group
- Full capability for electronic management of DoD property in the possession of contractors

18-Month Outcomes/Targets

- Demonstrate an integrated data environment
- All serially managed assets registered in the IUID Registry
- Fully integrated capability for uniquely identifying and marking of personal property items in all organic depots

Enterprise Initiative: Radio Frequency Identification (RFID)

Description and Objective: Within the collective suite of Automatic Identification Technology (AIT) applications, RFID is a family of technologies that enables hands-off processing of materiel transactions. RFID is a transformational technology and will play a vital role in achieving the DoD vision for implementing knowledge-enabled logistic support to the warfighter through fully automated visibility and management of assets. Employment of RFID allows DoD to re-apportion critical manpower resources to warfighting functions and to streamline business processes, in partnership with industry that benefits both enterprises

Approach:

- RFID technology will be implemented through a phased approach, applied both to supplier requirements and DoD sites. Shipments of goods and materials will be phased in by procurement methods, classes/commodities, location and layers of packaging. (Phase I) Starting in 2005, RFID tagging will be required for DoD manufacturers and suppliers who have new contracts issued with the appropriate contract clause. Selected items in classes of supply I, II, VI, & IX scheduled for shipment to the Defense Distribution Depots at Susquehanna, PA and San Joaquin, CA will require RFID tags to be placed on all individual cases, all cases packaged within palletized unit loads, and all palletized unit loads. (Phase II) In 2006, the requirement for RFID tags will be expanded to cover the remaining classes of supply shipped to other distribution depots, aerial ports, and maintenance facilities in the military services and DLA. (Phase III) In 2007, all classes of supply will require RFID tags on all individual cases, all cases packaged within palletized unit loads, all pallets, and all unit packs for unique identification (UID) items. RFID tagging will be required on commodities shipped to any DoD location

Benefits:

- Improve visibility of information and assets throughout the DoD supply chain.
- Improve process efficiency of shipping, receiving, and inventory management.
- Reduce cycle time
- Increase warfighter/customer confidence in the reliability of the DoD supply chain.

6-Month Outcomes/Targets

- Implement tactical USMC pilot at Camp Lejeune
- Implement RFID at 3 aerial ports
- Publish DFAR clause for Class I (some), II, VI, IX shipments to distribution depots, aerial ports, and maintenance facilities
- Suppliers apply passive RFID tagging to items in DFAR clause

12-Month Outcomes/Targets

- Implement ability to read/write passive RFID at half of OCONUS depots

18-Month Outcomes/Targets

- Implement ability to read/write passive RFID at 3/4ths of OCONUS depots
- Publish DFAR clause for applying tags to remaining commodities and remaining locations
- Suppliers apply passive RFID tags to all shipments for all commodities

Enterprise Initiative: Transition from MILS to EDI or XML (MILS to EDI or XML)

Description and Objective: Facilitate DOD directed migration of automated information systems (AISs) interfaces from Military Standards (MILS) 80 record position transactions to ANSI X12 Electronic Data Interchange (EDI) or Extensible Markup Language (XML) variable length transactions.

Approach:

- DLA will provide to the Department the additional functionality by providing more current versions of standard variable length exchanges (e.g. Advance Shipping Notice) with RFID, UID and SFIS content
- "Bridge" the time till receiving legacy systems are replaced or migrated to DLMS with deployed middleware
- DoD will provide incentives and accelerate the Component's transformation from MILS to variable length records
- USTRANSCOM will attack this transformation challenge by identifying systems currently using MILS, both within USTRANSCOM and within Transportation Component Commands (TCCs)
- The USTRANSCOM approach will go further to identify and transform multi-system common transactions specified in the Defense Transportation Regulation (DTR) using MILS that will provide highly leveraged "bang for the buck" in both the distribution and transportation domains. A major initiative will be the Standard Truck Manifest
- Component initiatives will support extension of RFID/IUID content to forward edge of battlefield

Benefits:

- Improve the DOD end-to-end distribution system
- Enhance the responsive, affordable, and time-sensitive transportation services provided across the DOD
- Allow visibility of materiel throughout the distribution and transportation cycle
- Allow transmission of information among systems and organizations at a rate and with a level of detail currently not possible with the 80-character limited MILS interface formats
- Improves Total Asset Visibility
- Enable near term implementation of IUID and RFID by existing legacy systems
- Enables Standard Financial Information Structure/ "Family" of IUIDs

6-Month Outcomes/Targets

- Develop and deploy middleware ("bridge") to be positioned immediately in front of legacy logistics systems using MILS to perform materiel receiving with IUID and RFID content
- Determine all Defense Transportation System (DTS) potential trading partner interfaces
- Prioritize all potential DTS interfaces. Allocate 1/2 of the funds to the highest priority interfaces
- Monitor trading partner migration performance and provide assistance as appropriate
- Concurrent "Master Data" (Vendor, Item, Customer) modernizations

12-Month Outcomes/Targets

- Allocate the second half of the funds to the next highest priority transportation interfaces
- Monitor trading partner migration performance and provide assistance as appropriate
- Assure successful implementation of migrated interfaces
- Extend "bridge" to additional data hubs

18-Month Outcomes/Targets

- Monitor trading partner migration performance and provide assistance as appropriate
- Assure successful implementation of migrated interfaces
- Extend "Bridge" to remaining data hubs